

**CLAIMS**

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1523 What is claimed is:

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1525 1-7. (Cancelled).

1526 8. (Currently Amended) A method The method of claim 3, further comprising

1527 of transmitting pilot tones in a multi-sector cell including at least a first sector and a

1528 second sector, the second sector being located adjacent said first sector, the method

1529 comprising:

1530 transmitting, using a first tone, in said first sector during a first symbol time a first

1531 pilot signal having a first pre-selected transmission power;

1532 transmitting, using said first tone, in said second sector during a second symbol

1533 time, which overlaps said first symbol time, a second pilot signal having a second pre-

1534 selected transmission power which is different from said first pre-selected transmission

1535 power;

1536 transmitting, using a second tone, in said first sector during a third symbol time a

1537 third pilot signal having a third pre-selected transmission power;

1538 transmitting, using said second tone, in said second sector during a fourth

1539 symbol time, which overlaps said third symbol time, a fourth pilot signal having a fourth

1540 pre-selected transmission power which is different from said third pre-selected

1541 transmission power;

1542 transmitting, using a third tone, in said first sector during a fifth symbol time a

1543 fifth pilot signal having a fifth pre-selected transmission power; and

1544 transmitting, using said third tone, in said second sector during a sixth symbol

1545 time, which overlaps said fifth symbol time, a sixth pilot signal having said fifth pre-

1546 selected transmission power.

1547 9. (Original) The method of claim 8, wherein said second, third and fifth pre-

1548 selected transmission powers are the same.

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1550 10. (Original) The method of claim 9, wherein said second pre-selected  
1551 transmission power is zero, the second, third, fifth and sixth pilot signals being NULL  
1552 pilot signals.

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1553 11. (Original) The method of claim 8,  
1554 wherein said first, second, and third tones are the same; and  
1555 wherein said first, third and fifth symbol times are different.

1556 12. (Original) The method of claim 8,  
1557 wherein said first, third and fifth symbol times are the same; and  
1558 wherein said first, second and third tones are different.

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1559 13. (Original) The method of claim 8, wherein said first, fourth and fifth pre-  
1560 selected transmission powers are the same.

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1561 14. (Original) The method of claim 13,  
1562 wherein said first, fourth and fifth pre-selected transmission powers are non-  
1563 zero; and  
1564 wherein said second and third pre-selected transmission powers are zero.

1565 15. (Original) The method of claim 8, further comprising:  
1566 periodically repeating each of said transmitting steps to form a pre-determined  
1567 repeating sequence of said transmitting steps.

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1568 16. (Original) The method of claim 12, further comprising:  
1569 transmitting, using a fourth tone, in said first sector during a seventh symbol time  
1570 a seventh pilot signal having a seventh pre-selected transmission power which is  
1571 different from said fifth pre-selected transmission power; and  
1572 transmitting, using said fourth tone, in said second sector during an eighth  
1573 symbol time, which overlaps said seventh symbol time, an eighth pilot signal having an  
1574 eighth pre-selected transmission power which is the same as said seventh pre-selected  
1575 transmission power.

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1576 17. (Original) The method of claim 16,  
1577 wherein said first, second, third and fourth tones are different; and  
1578 wherein said first, third, fifth and seventh symbol times are the same.

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1579 18. (Original) The method of claim 16,  
1580 wherein the first, second, third and fourth tones are the same; and

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1581       wherein said first, third, fifth and seventh symbol times are different.

1       19. (Original) The method of claim 16, wherein the first, fourth and sixth pre-  
2       selected transmission powers are the same.

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3       20. (Original) The method of claim 19,

4       wherein the second, third and fifth pre-selected transmission powers are zero;  
5       and

6       wherein the said first, third, fifth and seventh symbol times are the same.

7       21. (Original) The method of claim 16, further comprising:

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8       repeating each of said transmitting steps according to a pre-selected repetition  
9       pattern.

10       22. (Currently Amended) A method of transmitting pilot tones in a multi-sector  
11       cell including at least a first sector and a second sector, the second sector being

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12       located adjacent said first sector, the method comprising:

13       transmitting, using a first tone, in said first sector during a first symbol time a first  
14       pilot signal having a first pre-selected transmission power; and

15       transmitting, using said first tone, in said second sector during a second symbol  
16       time, which overlaps said first symbol time, a second pilot signal having a second pre-  
17       selected transmission power which is different from said first pre-selected transmission  
18       power;

19       The method of claim 1, wherein said multi-sector cell further includes a third sector,  
20       said third sector being located adjacent said second sector, the method further  
21       comprising:

22       transmitting, using said first tone, in said third sector during a ninth symbol time a  
23       ninth pilot signal, said ninth symbol time overlapping said first and second symbol  
24       times, said ninth pilot signal being transmitted with the same transmission power as  
25       said first pilot signal.

26       23. (Currently Amended) A method of transmitting pilot tones in a multi-sector  
27       cell including at least a first sector and a second sector, the second sector being

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28       located adjacent said first sector, the method comprising:

29       transmitting, using a first tone, in said first sector during a first symbol time a first  
30       pilot signal having a first pre-selected transmission power; and

31 transmitting, using said first tone, in said second sector during a second symbol  
32 time, which overlaps said first symbol time, a second pilot signal having a second pre-  
33 selected transmission power which is different from said first pre-selected transmission  
34 power;

35 The method of claim 1, wherein said multi-sector cell further includes a third sector,  
said third sector being located adjacent said second sector, the method further  
comprising:

40 transmitting, using said first tone, in said third sector during a ninth symbol time a  
ninth signal, which is one of control and data pilot signal, said ninth symbol time  
overlapping said first and second symbol times.

24-25. (Cancelled).

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26. (Currently Amended) The method of claim 23 25, further comprising:  
periodically repeating each of said transmitting steps.

27-28. (Cancelled).

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45 29. The method of claim 28, further comprising: A method of transmitting pilot  
signals in a multi-sector cell, the multi-sector cell including at least first, second and  
third sectors, each of the first, second and third sectors being located adjacent at least  
one other one of said first, second and third sectors in said cell, the method comprising:  
transmitting during at least a portion of a first symbol time:

50 a first pilot on a first tone in the first sector using a first pre-selected  
transmission power;

a second pilot signal on the first tone in the second sector using a second  
pre-selected transmission power which is different from said first pre-selected  
amount of transmission power; and

55 a third pilot signal on the first tone in the third sector using a third pre-  
selected amount of transmission power, wherein the first and third pre-selected  
amounts of transmission power are non-zero and are the same; and  
transmitting during at least a portion of a second symbol time:

60 a fourth pilot on a second tone in the first sector using a fourth pre-  
selected amount of transmission power;

5           a fifth pilot on the second tone in the second sector using a fifth pre-selected amount of transmission power; and

a sixth pilot on the second tone in the third sector using said fifth pre-selected amount of transmission power.

10          30. (Original) The method of claim 29,

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wherein said first and second symbol times are the same;

wherein said first, third and fourth pilot signals are transmitted with the same amount of power; and

wherein said second fifth and sixth pilot signals are NULL pilot signals

15          transmitted with zero power.

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31. (Original) The method of claim 29, further comprising:

transmitting during at least a portion of a third symbol time:

a seventh pilot on a third tone in the first sector using said first pre-selected amount of transmission power;

an eighth pilot on the third tone in the second sector using an eighth pre-selected amount of transmission power; and

a data symbol on the third tone in the third sector.

15          32. (Original) The method of claim 30, wherein the first, second and third

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tones are different and wherein the first second and third symbol times are the same.

20          33-35. (Cancelled).

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